Claims

[c1]   A system for monitoring a fluid dispensing apparatus, comprising:

a plurality of fluid dispensing devices;

a control device for controlling individually at least one operating parameter of each said dispensing devices;

a monitor control for individually monitoring a characteristic of fluid flow through each said dispensing device and producing a respective signal representative thereof;

a visual display; and

a display control that is coupled to said monitor control and receives said respective signals from said monitor control related to each said characteristic for each dispensing device;

said display control providing a respective visual representation of said characteristic for each said dispensing device; said visual representations being displayed in selectable groupings on said visual display to permit an operator to monitor operation of said dispensing devices.

[c2]   The system of claim 1 wherein said display control is coupled to said monitor control across a network to per-

mit an operator to monitor operation of said dispensing devices from a remote location.

[c3] The system of claim 1 wherein each said visual representation comprises a graphical representation of each said signal relative to a time line.

[c4] The system of claim 1 wherein each said visual representation includes a color code to distinguish normal and fault conditions of each dispensing device.

[c5] The system of claim 1 wherein each said visual representation comprises a graphical representation of each said signal relative to a time line and a visual display of alarm limits for each signal.

[c6] The system of claim 5 wherein said alarm limits are graphically displayed as warning and fault bands on a time line.

[c7] The system of claim 1 wherein each said visual representation comprises data representations of each said characteristic, each said data representation being visually associated with a respective dispensing device graphic on said visual display.

[c8] The system of claim 1 wherein said signals are stored and can be later graphically displayed in a selected man-

ner by an operator.

[c9]   The system of claim 1 wherein said signals are date and time stamped.

[c10]   The system of claim 1 wherein said display control compares said signals with respective limits and generates fault signals when a fault is detected; each said detected fault being date and time stamped and separately displayable on said visual display.

[c11]   A system for monitoring a fluid dispensing apparatus, comprising:

a plurality of fluid dispensing devices;

control means for controlling individually at least one operating parameter of each said dispensing devices;

monitor means for individually monitoring a characteristic of fluid flow through each said dispensing device and producing a respective signal representative thereof;

a visual display; and

a display control means that is coupled to said monitor means and receives said respective signals from said monitor means related to each said characteristic for each dispensing device;

said display device providing a respective visual representation of said characteristic for each said dispensing device; said visual representations being displayed in se-

lectable groupings on said visual display to permit an operator to monitor operation of said dispensing devices.

[c12] A method for monitoring a fluid dispensing apparatus, comprising the steps of:

operating a plurality of fluid dispensing devices;

individually controlling at least one operating parameter of each said dispensing devices;

individually monitoring a characteristic of fluid flow through each said dispensing device and producing a respective signal representative thereof; and

visually displaying a respective visual representation of said characteristic for each said dispensing device; said visual representations being displayed in selectable groupings on a visual display to permit an operator to monitor operation of said dispensing devices.

[c13] .The method of claim 12 wherein said visual representations comprise a graphical display of each said signal on a time line with alarm bands.

[c14] The method of claim 13 comprising the step of date and time stamping fault occurrences and visually displaying fault occurrences for each dispensing device.

[c15] A method for monitoring a fluid dispensing apparatus,

comprising the steps of:

operating a plurality of fluid dispensing devices;

individually monitoring a characteristic of fluid flow through each said dispensing device and producing a respective signal representative thereof; and

visually displaying a respective visual representation of said characteristic for each said dispensing device; said visual representations being displayed in selectable groupings on a visual display to permit an operator to monitor operation of a plurality of said dispensing devices on a single display screen.

[c16]   The method of claim 15 wherein said visual representations comprise a graphical display of each said signal on a time line with alarm bands.

[c17]   The method of claim 17 comprising the step of date and time stamping fault occurrences and visually displaying fault occurrences for each dispensing device.

[c18]   The method of claim 15 wherein said visual representations are color coded to distinguish normal and fault conditions of each dispensing device.

[c19]   A method for observing visual display offered in data for a plurality of defensing devices, wherein an operator can group individual displays for two or more dispensings;

wherein said devices are in side-by-side comparative relationship, said individual displays including visual representations of a characteristic of a dispensed fluid of a fluid disperser being displayed.